



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

January 7, 2005

Mr. Kevin Burdette
McCrone, Inc.
119 Naylor Mill Road
Building 1, Suite 6
Salisbury, MD 21801

RE: PLUS review – PLUS 2004-12-04 Beaver Creek-Phase 3

Dear Mr. Burdette,

Thank you for meeting with State agency planners on December 22, 2004 to discuss the proposed plans for the Beaver Creek-Phase 3 project to be located on the east side of SR5 approximately 1,500 feet north of SR9 in Sussex County.

According to the information received, the developers are seeking to develop 154 residential dwelling units on 77.072 acres north of Harbeson. The property is currently zoned AR-1 and the development would proceed under the same zoning with a Residential Cluster Subdivision use.

Please note that changes to the plan, other than those suggested in this letter, may result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented in the PLUS review. The developers will need to comply with any Federal, County and local regulations regarding this property. As Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

This office has received the following comments during the PLUS review:

Office of State Planning Coordination – Contact Ann Marie Townshend 739-3090

This proposal is located in an Investment Level 4 area according to the Strategies for State Policies and Spending. In these areas, State policies support preservation of agriculture and natural resources, not development. State will not support or participate in any improvements necessary to serve this development.

We recognize that a subdivision has been approved by Sussex County for this site, and that the proposal is for a modification of the current subdivision by using the County's

cluster ordinance. While we are pleased to see that the design now provides for more open space and less encroachment on the wetland and wooded areas of the parcel, we note that there are still impacts proposed to forested areas of the site, particularly the area with the club house, pool, stormwater pond, and wastewater and propane infrastructure. We further note that both DNREC and the State Historic Preservation Office express concern about encroachment on the forested area of the site. We recommend that you remove development from the wooded area of the site and implement the recommendation made by DNREC for a 100-foot buffer along the forest and wetland complex. Additionally, we are concerned that with the revised site plan, the number of lots proposed has increased significantly from 100 lots to 154 lots.

State Historic Preservation Office (SHPO) – Contact Anne McCleave 739-5685

This development is not favored because it is in an Investment Level 4 of the State Strategies for Policies and Spending. There is a house on the property that is deteriorating and will be demolished for the proposed development. During the meeting, the developer gave Anne McCleave and the Sussex County Preservation Planner permission to access the property and document the house before its demolition. The demolition is scheduled to occur within the next couple months. Ms. McCleave will confirm a time and let the developer know when the documentation will take place.

There are other historic houses along SR5, across and immediately south of the proposed development. It is suggested that the developers provide landscaping along the southern edges of the development to minimize visual impacts to these properties. There is a high probability for historic and prehistoric archaeological sites. It is recommended the development stay out of the wooded area to preserve sites. If there is federal involvement in the form of permits, licenses, or funds, the federal agency is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and should consider the effects the project will have on historic resources.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- 1) Because the development is proposed for a Level 4 Area, it is inconsistent with the Strategies for State Policies and Spending. Therefore DelDOT will not participate in the cost of any road improvements needed to support this development. The comments that follow are technical, and are not intended to suggest that DelDOT supports this development proposal.
- 2) Route 5 is classified as a collector road. From tax maps and aerial photography, it appears to have an existing right-of-way width of about 60 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication to provide the additional ten feet from this project.
- 3) DelDOT will also require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.

- 4) DelDOT recommends changing the site design to eliminate the proposed cul-de-sac, in order to enhance the grid street pattern and provide more of a sense of community.
- 5) DelDOT recommends that stub streets be provided to the Sherman parcel to the north.
- 6) The developer's engineer should contact our Subdivision Manager for Sussex County, Mr. John Fiori, regarding our requirements for access. Mr. Fiori may be reached at (302) 760-2260.

The Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-3091

General Comments

DNREC expressed concern about the proposal's location in an Investment Level 4 area that lacks adequate infrastructure and impacts natural resources.

Design Recommendation

This project should not be approved without significant changes. Lots should be moved closer together. The developer should minimize impacts to the forested area and wetland by removing lots 28-48 and 138-141, the clubhouse, pool, parking lot and stormwater management ponds. The proposed open space dispersed throughout the plan should be placed along forest edges to improve habitat quality for wildlife and water quality for Beaver Creek. Buffers of no less than 100 feet should be employed along the forest and wetland complex.

Soils

The Sussex County soil survey update mapping indicates that Pepperbox-Rosedale complex, Longmarsh-Indiantown complex, and Zekiah were mapped in the immediate vicinity of the proposed construction. Pepperbox-Rosedale complex is a moderately well to somewhat well drained soil that has moderate to few limitations for development. Longmarsh-Indiantown complex and Zekiah are very poorly-drained wetland associated (hydric) soils that have severe limitations for development.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested wetlands on this site.

Impacts to Palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex and other waterbodies on site. It is important to note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands and associated buffers, to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

It should also be noted that this parcel immediately borders sensitive headwater or near headwater riparian wetlands associated with the Broadkill River. Headwater streams and their associated wetlands are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system downstream. Since such streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority.

In recognition of this concern, the Department strongly recommends that the applicant preserve the existing natural forested buffer (both wetlands and uplands) adjacent to the headwater stream(s) in its entirety. Efforts to maximize or expand the existing natural forested buffer width via planting of native woody or herbaceous vegetation, is further recommended.

TMDLs

The developer is encouraged to employ BMPs (or other pollution control strategies) such as stormwater management and riparian buffers to mitigate any potential nutrient runoff into an adjoining streams or watercourse.

Although Total Maximum Daily Loads (TMDLs) as a “pollution runoff mitigation strategy” to reduce nutrient loading have not yet been developed for most of the tributaries or subwatersheds of the Delaware Bay watershed to date, work is continuing on their development. TMDLs for the Broadkill subwatershed, of which this parcel is part, are scheduled for completion in December 2006.

Therefore, until the specified TMDL reductions and pollution control strategies are adopted, it shall be incumbent upon the developer to employ best available technologies (BATs) and/or best management practices (BMPs) as “methodological mitigative strategies” to reduce degradative impacts associated with development.

Water Supply

The project information sheets state that the source of water supply has not yet been determined. DNREC records indicate that the project is not located in an area where

public water service is available. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. In this case, a minimum isolation distance of 150 ft. is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area. A well construction permit must be obtained prior to constructing any wells.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-3665.

Sediment and Erosion Control/Stormwater Management

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through Sussex Conservation District. Contact Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees.

It is strongly recommended that you contact Sussex Conservation District to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre and post development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to DNREC Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.

Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique.

Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption.

A Certified Construction Reviewer (CCR) will be required for the site during construction. You should contact Sussex Conservation District for details regarding the CCR requirement.

Copies of state and/or federal permits for construction of the stormwater outfall within wetlands must be included with the plan submittal.

Forests

According to 2002 aerial photos there is a forested area within this parcel. The forest provides important riparian habitat, wildlife connectors, and air quality and water quality benefits. Fragmentation of this forest can have irreversible effects to Beaver Creek and the regional ecosystem.

Lot lines should be redesigned to avoid all impacts to the forested area. Therefore, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. This includes removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately. Where possible, the developer should seriously consider habitat improvements such as revegetating portions of the site to increase the buffer zone to the Beaverdam Creek. A forested buffer of 100 feet or more would substantially benefit water quality and wildlife habitat.

Forested areas on-site set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that lot lines and other infrastructure (such as storm water management ponds) be pulled out of the forest and that areas of community open space be designated along the forested/riparian areas. Doing so will accomplish two things: it will preserve and expand the buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off

into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

Stormwater Ponds, Buffers, and Nuisance Species

The stormwater management ponds incorporated within the subdivision will likely attract waterfowl like resident Canada geese and mute swans that will create a nuisance for community residents. Although small numbers of these species are enjoyed by residents, geese and swans can quickly multiply and overwhelm the area. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Ponds that remain in the subdivision plan should be landscaped to deter nuisance species. Short manicured lawns around ponds provide an attractive habitat for these species. However, native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (we recommend 50 feet) around ponds, are not as attractive to geese because they do not feel as safe from predators and other disturbance when their view of the area is blocked. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

It is further recommended that all stormwater ponds be at least 100 feet from all wetlands and waterbodies.

Revegetation/Landscaping

We request that no invasive species be used in the revegetation of disturbed or landscaped areas. A list of species considered invasive in Delaware can be found on the DNREC web site, www.dnrec.state.de.us/fw/invasive.htm. We further encourage, where possible/feasible, the use of native plants for habitat restoration projects on-site and our Botanist, Bill McAvoy can be contacted at (302) 653-2880 to assist you in developing a plant list.

Recreation

DNREC appreciates the clubhouse and pool as needed amenities. However, they should be more centrally located, thereby preserving the forested area and needing fewer dedicated parking spaces for clubhouse/pool visitors.

DNREC recommend that sidewalks be built fronting every residence and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe, convenient off-road access to neighboring communities, public mass transit stops, schools, stores, work, etc.

Underground Storage Tanks

There is one active LUST site(s) located near the proposed project:

Harberson Land Inc., Facility # 5-000090, Project # S9312204

No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would be need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel in the contaminated areas.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 11.8 tons (23,637.4 pounds) per year of VOC (volatile organic compounds), 9.8 tons (19,570.2 pounds) per year of NO_x (nitrogen oxides), 7.2 tons (14,439.2 pounds) per year of SO₂ (sulfur dioxide), 0.6 ton (1,285.3 pounds) per year of fine particulates and 988.6 tons (1,977,237.8 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 4.8 tons (9,534.0 pounds) per year of VOC (volatile organic compounds), 0.5 ton (1,049.0 pounds) per year of NO_x (nitrogen oxides), 0.4 ton (870.5 pounds) per year of SO₂ (sulfur dioxide), 0.6 ton (1,123.4 pounds) per year of fine particulates and 19.3 tons (38,648.8 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 1.9 tons (3,778.6 pounds) per year of NO_x (nitrogen oxides), 6.6 tons (13,143.0 pounds) per year of SO₂ (sulfur dioxide) and 969.3 tons (1,938,589.0 pounds) per year of CO₂ (carbon dioxide).

	VOC	NO _x	SO ₂	PM _{2.5}	CO ₂
Mobile	11.8	9.8	7.2	0.6	988.6
Residential	4.8	0.5	0.4	0.6	19.3
Electrical Power		1.9	6.6		969.3
TOTAL	16.6	12.2	14.2	1.2	1977.2

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

State Fire Marshal's Office – Contact John Rossiter 323-5365

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide: completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

Fire Protection Water Requirements

- 1) Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Storage)
- 2) Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)
- 3) Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
- 4) Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

Fire Protection Features

- 1) All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- 2) Buildings greater than 10,000 sq.ft., 3-stories or more or over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.
- 3) Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- 4) Show Fire Lanes and Sign Detail as shown in DSFPR

Accessibility

- 1) All premises which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Delaware Route 5 must be constructed so fire department apparatus may negotiate it.
- 2) Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.

- 3) Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- 4) If the use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

Gas Piping and System Information

- 1) Provide type of fuel proposed, and show locations of bulk containers on plan.

Required Notes

- 1) Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- 2) Proposed Use
- 3) Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- 4) Square footage of each structure (Total of all Floors)
- 5) National Fire Protection Association (NFPA) Construction Type
- 6) Maximum Height of Buildings (including number of stories)
- 7) Note indicating if building is to be sprinklered
- 8) Name of Water Provider
- 9) Letter from Water Provider approving the system layout
- 10) Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- 11) Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact Mark Davis 739-4811

The Department of Agriculture does not support development of this site located in a Level 4 Area of the State Strategies for Policies and Spending. We encourage the developer to redesign this plan and resubmit a more environmentally friendly site plan.

The Delaware Forest Service (DFS) encourages the developer to consider a diverse landscape plan that utilizes the right tree for the right place concept. DFS encourages preservation of forested areas adjacent to creeks, streams, wetlands and other water bodies to lessen potential pollutants to the state's water resources. Also, DFS requests connections for both traditional and green infrastructure between future development activities and existing natural resources. Finally, DFS encourages the use of a forestry or arboriculture professional to support the activities recommended for this site.

Public Service Commission - Contact Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

The project is not in a certificated area. The water service provider selected will need to apply for a Certificate of Public Convenience and Necessity (CPCN) to serve the project.

If wastewater services are provided by a non-governmental entity, and there are more than 50 customers served, the wastewater service provider will need to apply to the PSC for a CPCN. Additional requirements may apply if the provider has not previously been awarded a CPCN by the Commission.

Recent legislation (Senate Bill 99) placed non-governmental companies providing wastewater services to 50 or more customers (in the aggregate) under the regulatory control of the PSC. While rules are not yet in place, governmental agencies offering wastewater services must file data with the Commission regarding its service areas. Contact: Kevin Neilson at (302) 739-4247.

Delaware State Housing Authority – Contact Jimmy Atkins 739-4263

The proposal is to develop 154 units on 77 acres located on the east side of Route 5, adjacent to Beaverdam Creek, and north of Harbeson. According to the State Strategies for Policies and Spending, the proposal is located in an Investment Level 4 area. As a general practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the State Strategies Map. The proposal is located in an area targeted for agricultural activities and natural resource protection, and therefore inconsistent with where the State would like to see new residential development.

Department of Education – Contact: Nick Vacirca 739-4658

Development in Investment Level 4 areas of the State Strategies for Policies and Spending will cause additional strain on the public school transportation system.

It is estimated that 154 dwelling units could generate 77 additional students for the Cape Henlopen School District.

Sussex County does not have school concurrence legislation at this time. The Department of Education recommends that the developer submit a package to the school district for informational purposes and work closely with the school district transportation supervisor.

If the development is approved and built, please use the following information for school transportation planning: homes more than 1/2 mile from the nearest public road (outside the development) require streets wide enough for large school bus access and turn around (without backing) from the furthest areas within the development. Should there not be

any homes more than 1/2 mile from the nearest public road, pick-up and drop-off areas at the development entrance should be included.

Sussex County – Contact Richard Kautz

The developer should provide the stub road access to adjacent property as requested by DelDOT.

Because this project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C).

Sussex County Engineer Comments: the project proposes a private central community wastewater system. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility. In addition, we recommend they have a wastewater utility provider prior to approving the project. Access to all utilities within the subdivision (i.e. wastewater treatment plant and propane storage) should be provided by internal roads of the subdivision. The proposed project is located outside of the Inland Bays Planning Area where Sussex County expects to provide sewer service. Sussex County requires design and construction of the collection and transmission system to meet sewer standards and specifications. If the County provides sewer service in the future, it is required that the treatment system be abandoned and a direct connection made to the County system at developer and/or homeowner association expense. A review of the treatment and disposal system by the Sussex County Engineering Department is also required. For questions regarding these comments, contact Rob Davis, Sussex County Engineering Department at (302) 855-7820.

This concludes our comments. Upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to these comments noting whether or not specific recommendations were incorporated into the project design and the reasons therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in dark ink, appearing to read "Constance C. Holland". The signature is fluid and cursive, with the first name being the most prominent.

Constance C. Holland, AICP
Director

CC: Sussex County